**Immunization Test Tool Release Notes for Version 1.8.0 February 21, 2018**

**Data**

| **Test Case / Message Profile** | **Issue** | **Resolution** |
| --- | --- | --- |
| Administration Group  Test Case: IZ-AD-5\_Refusal  Test Step: IZ-AD-5.1\_Send\_V04\_Z22 | Per the CDC, the VIS code for the MMR vaccine has been updated. | VIS code 253088698300012711120420 was replaced with VIS code 253088698300012711180212 for the **MMR** vaccine in the VXU test message  Note: **Test Data Categories** information (Value-Test Case Fixed, Presence-Test Case Proper, Value-Profile Fixed) was added for OBX-5.1, 5.2, and 5.3 respectively for the related OBX segment in this test message. These additions will be visible on the Message Content sheet for this Test Step. This correction will cause the Tool to generate an additional, more specific Error notification for these message elements. |
| Administration Group  Test Case: IZ-AD-9\_Admin\_IIS-2Warnings  Test Step: IZ-AD-9.1\_Send\_V04\_Z22 | Per the CDC, the VIS code for the MMRV vaccine has been updated. | VIS code 253088698300013411100521 was replaced with VIS code 253088698300013411180212 for the **MMRV** vaccine in the VXU test message |
| For Z22, Z32, and Z42 messages | Per the CDC, the VIS codes for the Recombinant Zoster VIS, and Updated MMR, MMRV, Varicella, and Live Zoster VISs have been added to the CDC VIS table. | Updates have been made to the **PHVS\_VISBarcodes\_IIS** **Value Set** in the Immunization Test Suite; added:   * **Description**: Recombinant Zoster Vaccine   **VIS Code**: 253088698300032511180212   * **Description:** MMR Vaccine   **VIS Code:** 253088698300012711180212   * **Description:** MMRV Vaccine   **VIS Code:** 253088698300013411180212   * **Description:** Varicella Vaccine   **VIS Code:** 253088698300024011180212   * **Description:** Live Zoster Vaccine   **VIS Code:** 253088698300020211180212 |
| Updates have been made to the **PHVS\_VISVaccines\_IIS** **Value Set** in the Immunization Test Suite; added:   * **Description:** zoster vaccine recombinant   **CVX Code:** 187   * **Description:** zoster live   **CVX Code:** 121 |

**Specific Validation**

| **Issue** | **Resolution** |
| --- | --- |
| For Z23 (ACK), the validator accepts values 1 through 6 for ERR-5.1 (Application Error Code Identifier) and the validator requires that ERR-5.3 (Name of Coding System) be “HL70533”.    HL70533 (Application Error Code) is a user-defined table, so IISs have the right to add values (codes and descriptions) to this Value Set; in addition, for ERR-5.1 and ERR-5.3 IISs could use locally-defined codes for local Coding Systems that are included in HL70396, such as 99zzz or L. | The HL70533\_IZ Value Set for Z23 (ACK) has been modified in the Tool; Extensibility="Open" has been added to the ValueSetDefinition BindingIdentifier="HL70533\_IZ" Name="Application Error Code" section of the ACK-Z23\_ValueSetLibrary.xml  As of this modification, for Z23 (ACK) messages the validator allows:   * ERR-5.1 to be any value * ERR-5.3 to be any one of these values   + HL70533   + L   + 99zzz (where zzz could be alpha characters that identify the IIS)   + Any value in HL70396   Since the HL70533\_IZ Value Set for Z23 (ACK) has extensibility of “OPEN” (meaning it can be extended locally), when ERR-5.1 is populated with a value not in HL70533, the validator issues an **Alert** indicating that the Test Tool cannot validate the content in ERR-5.1 fully, because not all of the pertinent information is known by the Tool. |

| **Issue** | **Resolution** |
| --- | --- |
| For Z31, Z32, Z33, and Z42 (RSP), the validator accepts values 1 through 6 for ERR-5.1 (Application Error Code Identifier) and the validator requires that ERR-5.3 (Name of Coding System) be “HL70533”.  HL70533 (Application Error Code) is a user-defined table, so IISs have the right to add values (codes and descriptions) to this Value Set; in addition, for ERR-5.1 and ERR-5.3 IISs could use locally-defined codes for local Coding Systems that are included in HL70396, such as 99zzz or L. | The HL70533\_IZ Value Set for Z31, Z32, Z33, and Z42 (RSP) has been modified in the Tool  As of this modification, the Context-free validator allows for Z31, Z32, Z33, and Z42 (RSP) messages:   * Only one ERR segment per RSP message * ERR-5.1 to be any value * ERR-5.3 to be any one of these values   + HL70533   + L   + 99zzz (where zzz could be alpha characters that identify the IIS)   + Any value in HL70396   As the HL70533\_IZ Value Set for Z31, Z32, Z33, and Z42 (RSP) now has extensibility of “OPEN” (meaning it can be extended locally), when ERR-5.1 is populated with a value not in HL70533, the validator issues an **Alert** indicating that the Test Tool cannot validate the content in ERR-5.1 fully, because not all of the pertinent information is known by the Tool. |
| For VXU messages in the Context-free feature, the validation is generating IZ-23 and IZ-24 error notifications regarding RXA-20, for which the Usage is RE (Required, but may be empty). The validator is missing the Presence check in the IF statement of Constraint IZ-23 and IZ-24; i.e., the tool is not accounting for the “if” part of the conformance statement.  **IZ-23**: If RXA-20 is valued "CP" or "PA" and the first occurrence of RXA-9.1 (Administration Note.code) is “00” then the message SHALL include an OBX segment associated with the RXA with OBX-3.1 shall equal “64994-7”. This OBX will indicate the Patient Eligibility Category for Vaccine Funding Program. | The Tool has been modified and now accounts for the “if” part of the IZ-23 and IZ-24 conformance statements; the previous Error notifications – related to RXA-20 not being valued – are no longer generated.  *Note: as best practice, RXA-20 and RXA-9 should be valued if possible.* |
| **IZ-24**: If RXA-20 is valued "CP" or "PA" and the first occurrence of RXA- 9.1 is valued “00” and RXA-5.1 is valued with a CVX code from table PHVS\_VISVaccines\_IIS (See Appendix A) then for each vaccine information statement that was shared there SHALL be:  • one OBX segment with OBX-3.1 valued “69764-9” (bar coded) and one OBX with OBX-3.1 valued “29769-7” (presentation /delivery date) associated. Both OBX shall have the same value in OBX-4 OR  • one OBX segment with OBX-3.1 valued “30956-7” (vaccine type) and one OBX segment with OBX-3.1 valued “29768-9” (version date) and one OBX with OBX-3.1 valued “29769-7” (presentation /delivery date) associated. All three OBX shall have the same value in OBX-4 |  |

**User Interface**

| **Issue** | **Resolution** |
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| As of December 2017, the ONC approved an alternative test method, the Immunization Integration Program, which is offered by the Healthcare Information and Management Systems Society (HIMSS). | The verbiage in the “2015 ONC Health IT Certification” box on the Welcome Screen of the Tool has been **modified** to read:  “The NIST Immunization Test Suite is **a** test tool used for certifying ONC 2015 Edition Health IT Modules. The **NIST** capability used for ONC Certification can be accessed by navigating to the ONC 2015 Test Plan **via** the HL7 Context-based **option**. The ONC 2015 Test Plan is used to certify Modules for the §170.315(f)(1) Transmission to Immunization Registries ONC criterion. |
| In the **Context-based** function on the **Test Execution** screen:   * Execution Status of “waiting for message” only applies when automated transport is **turned** **on** while using the Context-based **Test Case-Level** validation * Status of “Complete” currently displays in the Execution Status column when automated transport is **not turned on** while using either the Context-based **Test Step-Level** or **Test Case-Level** validation | The Tool has been modified:   * The heading for the column has been changed from “Execution Status” to “**Transport** **Status**” * The “**Transport** **Status**” column does not appear at all on the Test Execution screen when automated transport is turned **off** or when Context-based **Test Step-Level** testing is being used * The “**Transport** **Status**” column appears and displays “waiting for message” when automated transport is turned **on** and Context-based **Test Case-Level** testing is being used * Automated transport can be turned on using either the **Transport Settings** on the **Hello Guest** dropdown menu or using the Transport enabling function available on the **Test Execution** screen after the Test Case is loaded) |

| **Issue** | **Resolution** |
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| In the **Context-free** function, when a Profile (e.g., VXU-Z22) is selected from the Profile Group listing, the Profile name shown on Validation window heading is supposed to be the same as the Profile selected.  When the **Context-free** function is accessed and an initial Profile is selected, that Profile’s name continues to display in the Validation window heading even after a different Profile is selected. | The Tool has been modified: when the **Context-free** function is accessed and an initial Profile is selected, that Profile name displays in the Validation window heading. When a different Profile is selected, that different Profile’s name displays in the Validation window heading. |

**Core Functionality**

| **Issue** | **Resolution** |
| --- | --- |
| Not all Data Types used (Usage R, RE, C) in the selected Profile display on the Datatypes tab in the Profile Viewer (e.g., “CE” does not display even though it should); other Data Types that are not used (Usage O, X) in the selected Profile are being displayed on the Datatypes tab in the Profile Viewer (e.g., “MO”) when they should not be displayed. | The Datatypes tab in the Profile Viewer in the Tool has been modified  to display only the appropriate Data Types for the selected Profile. |
| In the **Context-based** feature:   * When a test message for a Test Step is validated and the test tool finds **no errors**, the *default* Validation Result “Passed” displays in the **Validation Result** **column** on the **Execution Screen**; and the Result “Passed” displays in the metadata of the **Validation Report**. * **The problem**: if that test message is then modified with the introduction of errors (or if the test message is replaced by a message containing errors) using the Message Content window on the Execution Screen and is re-validated and the test tool finds **errors**, the *default* Validation Result “Passed” still displays in the **Validation Result column** on the **Execution Screen**; and the Result “Passed” still displays in the metadata of the **Validation Report**.   Note: Currently working correctly is the capability that allows the Tester/User to add more descriptive information to the validation result generated automatically by the test tool. If the Tester/User selects an option from the **Validation Result** dropdown menu, replacing “Passed” with the selected option (e.g., “Failed”), then the selected option displays (1) in the **Validation Result column** on the **Execution Screen,** and (2) in the **Result** field of the metadata of the **Validation Report**. | The Tool has been modified - **the problem** has been fixed; also, certain column headers on the Execution screen and field names on the Validation Report have been changed:   * When a test message for a Test Step is validated and the test tool finds **no errors**, the *default* outcome “Passed” displays in the **Test Step Outcome** column on the **Execution Screen**; and “Passed” also displays in the **Message Validation Result** and **Test Step Outcome** fields of the metadata on the **Validation Report**. * When errors are inserted into that test message in the Message Content window (or when the test message is replaced by a message that contains errors) and the test tool finds the errors when that message is re-validated   + “Failed” displays automatically in the **Test Step Outcome** column on the **Execution Screen**   + “Failed” displays in both the **Message Validation Result** and **Test Step Outcome** fields the in the metadata of the **Validation Report**.   Note: The Tester/User still has the ability to enter more descriptive information in addition to the validation result generated automatically by the test tool; see the **Improvements/Features** section of the Release Notes for details about the related changes. |
| In the Test **Step** Level Context-based validation feature of the Tool, only the Test Story and the Example Message can be downloaded as a PDF document from the **Test Selection** screen. | For the Test **Step** Level Context-based validation feature of the Tool, the ability to Download PDFs from the **Test Selection** screen has been added for the Test Data Specification, Message Content, and Juror Document |
| In the Test **Case** Level Context-based validation feature of the Tool, only the **Example Message** can be downloaded as a PDF document from the **Test Execution** screen. | For the Test **Case** Level Context-based validation feature of the Tool, the ability to Download PDFs from the **Test Execution** screen has been added for the Test Story, Test Data Specification, Message Content, and Juror Document |
| Intermittently in the Profile Viewer, when a Value Set link for an element is selected and the Value Set pop-up window displays, the user must click on the “XClose” button multiple times before the window will close; and then, intermittently, once the initial Value Set pop-up window closes another Value Set pop-up window displays with “Value Set Not Found” in the header and with the message “Sorry, Could not find this table in the library.” | The Tool has been modified. In the Profile Viewer, when a Value Set link for an element is selected and the Value Set pop-up window displays, the user only needs to click on the “XClose” button once and the pop-up window closes. |
| Per the CDC, the Full Name and Short Description for CVX code 187 (zoster vaccine) have been updated to use “recombinant” rather than “subunit”. | Update has been made to the **CVX Value Set** in the Immunization Test Suite for Code 187:   * **Description** has been changed from “zoster vaccine subunit” to “zoster vaccine recombinant”. |
| Per the CDC, new MVX codes have been added to the CDC MVX table for active vaccine re-labelers:   * DSI – Dispensing Solutions * REB – Rebel Distributors * VET - Vetter Pharma Fertigung GmbH & Co. KG | Updates have been made to the **MVX Value Set** in the Immunization Test Suite; added:   * **Code**: DSI **Description**: Dispensing Solutions * **Code**: REB **Description**: Rebel Distributors * **Code**: VET **Description**: Vetter Pharma Fertigung GmbH & Co. KG |
| Per the CDC, the Name of MVX code MIP has been updated to “Emergent BioSolutions” in the CDC tables. | Update has been made to the **MVX Value Set** in the Immunization Test Suite:   * The **Description** for Code MIP has been changed from “Emergent BioDefense Operations Lansing” to “Emergent BioSolutions” |
| Per the CDC:   * the Unit of Use NDC for HEPLISAV-B has been updated from 43528-0002-05 to 43528-0002-01 in the CDC NDC tables. (The CDC notification email of 1/19/18 incorrectly listed these NDCs as 43528-**002**-05 to 43528-**002**-01.) * the CDC NDC tables continue to use 43528-0002-05 as the Unit of Sale NDC per the package insert. (The CDC notification email of 1/19/18 incorrectly listed this NDC as 43528-**002**-05.) | Update has been made to the **NDC/Unit of Use Value Set** in the Immunization Test Suite:   * Replaced NDC 43528-0002-05 with NDC 43528-0002-01 for “Hepatitis B vaccine (recombinant), adjuvanted” (i.e., HEPLISAV-B) |
| Per the CDC, new NDCs for IXIARO (Japanese Encephalitis IM) by Vetter Pharma Fertigung GmbH & Co. KG have been added, along with a new product entry, to the CDC NDC tables. | Update has been made to the **NDC/Unit of Use Value Set** in the Immunization Test Suite:   * Added NDC 62195-0051-10 for “Japanese Encephalitis IM”   Update has been made to the **NDC/Unit of Sale Value Set** in the Immunization Test Suite:   * Added NDC 62195-0051-10 for “Japanese Encephalitis IM” |
| Per the CDC, new NDCs for Adacel (Tdap) by Sanofi Pasteur have been added to the CDC NDC table. | Update has been made to the **NDC/Unit of Use Value Set** in the Immunization Test Suite:   * Added NDC 49281-0400-89 for “Tdap”   Update has been made to the **NDC/Unit of Sale Value Set** in the Immunization Test Suite:   * Added NDC 49281-0400-20 for “Tdap” |
| **In future versions of the immunization IG**, LOINC code 48767-8 can be used in an OBX segment (OBX-3) for documenting free text comments (rather than overloading RXA-9 with multiple types of data). This alternative method is not in Release 1.5; it is considered current best practice.  Currently, LOINC code 48767-8 is not in the NIST testing tool value set for OBX-3, so an error notification is generated when it is included in a test message.  **In future versions of the immunization IG**, the Datatype “TX” will be used for OBX segments with LOINC code 48767-8. Table HL70125 is constrained in Release 1.5 and does not include “TX”.  Currently, Datatype “TX” is not in the HL70125 Value Set in the NIST testing tool, so an error notification is generated when it is included in a test message. | Update has been made to the **NIP003 Value Set** in the Immunization Test Suite; added:   * **Code**: 48767-8   **Code System**: LN  **Description**: Annotation comment [Interpretation] Narrative  Update has been made to the **HL70125 Value Set** in the Immunization Test Suite; added:   * **Code**: TX   **Code System**: HL70125  **Description**: Text data  These requirements/modifications do not affect ONC Edition 2015 HIT certification testing, which conforms to Release 1.5 of the immunization IG. |
| Per the CDC, the VIS codes for the Recombinant Zoster VIS, and Updated MMR, MMRV, Varicella, and Live Zoster VISs have been added to the CDC VIS table. | Updates have been made to the **PHVS\_VISBarcodes\_IIS** **Value Set** in the Immunization Test Suite; added:   * **Description**: Recombinant Zoster Vaccine   **VIS Code**: 253088698300032511180212   * **Description:** MMR Vaccine   **VIS Code:** 253088698300012711180212   * **Description:** MMRV Vaccine   **VIS Code:** 253088698300013411180212   * **Description:** Varicella Vaccine   **VIS Code:** 253088698300024011180212   * **Description:** Live Zoster Vaccine   **VIS Code:** 253088698300020211180212 |
| Updates have been made to the **PHVS\_VISVaccines\_IIS** **Value Set** in the Immunization Test Suite; added:   * **Description:** zoster vaccine recombinant   **CVX Code:** 187   * **Description:** zoster live   **CVX Code:** 121 |

**Documentation**

| **Issue** | **Resolution** |
| --- | --- |
| None |  |

**SOAP Functionality**

| **Test Case** | **Issue** | **Resolution** |
| --- | --- | --- |
|  | None |  |

**Improvements/Features**

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| * “**Validation Result**” header has been changed to “**Test Step Outcome**” on the **Execution Screen** * The **Validation Report** metadata section displays **Message Validation Result** and **Test Step Outcome** fields instead of just a Result field * When a test message for a Test Step is validated and the test tool finds **no errors**, the *default* outcome “Passed” displays in the **Test Step Outcome** column on the **Execution Screen**; and “Passed” also displays in the **Message Validation Result** and **Test Step Outcome** fields of the metadata on the **Validation Report**. * The Tester/User still has the ability to enter more descriptive information in addition to the validation result generated automatically by the test tool; the Tester/User now may select an option from the **Test Step Outcome** dropdown menu, replacing the automatically generated validation result with the selected option. The selected option then displays in the **Test Step Outcome** column on the **Execution Screen** as well as inthe **Test Step Outcome** field in the metadata on the **Validation Report**. In addition, the automatically generated result displays in the **Message Validation Result** field in metadata of the **Validation Report**. |
| On the **Test Execution** screen, a “Report” column has been added on the right-hand side of the **Test Execution** **table** for Test **Step**-level testing (and the **Test Steps Execution table** for Test **Case**-level testing). Once the test message has been validated by the Tool for a Test Step, a “Download” button displays in the “Report” column for that Test Step.  This new feature allows the Tester to download/view/print a pdf or xml or html version of the Validation Report for that Test Step **without having to click on the “Report” tab or Report button** to view the report on-line first and then click on the “Download” button from that tab to download/view/print a pdf or xml or html version of the Validation Report for that Test Step. |

**Issues for a Future Release**

| **Test Case/if Applicable** | **Issue** |
| --- | --- |
| All Test Steps with a VXU message | In a VXU Context-based message where there are multiple OBX segments for each Order Group, if an OBX segment has OBX-3.1 populated with the 69764-9 LOINC code and has OBX-5.1 populated with an incorrect VIS ID, the Test Tool issues an Error notification that indicates   * in the **Path** information the VXU Order Group (e.g., “VXU\_V04.ORDER[1]”) within which the OBX with the error is contained and * in the **Line #** information the line number listed in the Message Content window for the ORC segment in that Order Group. * In the **Description** information that an Error has been found due to there being no OBX segment where OBX-3.1 is populated with the 69764-9 LOINC code and OBX-5.1 is populated with [an expected VIS ID] within in this Order Group.   The Path, Line #, and Description information may or may not be meaningful enough for a Tester to determine which OBX segment contains the VIS ID error.  The Tool will be modified to make the Error notification more specific and meaningful. |
| Context-free Data Quality Assurance (DQA) function | The DQA tab in the Context-free / VXU Z22 function has been removed in order to update the capability. The Tool will be modified with an updated version.  (Tool Tutorial still shows demonstration of how DQA is intended to function.) |
| All Test Steps – Message Content pdf | Where the Data (value) consist of many characters without a space, the Data over-write the information in the Categorization column. The Tool will be modified to correct this issue.  (The **Complete Test Package** pdf accessible from the Test Data Documentation section on the Documentation tab does not have this issue.) |
|  | When available, an updated Tool Tutorial will be posted on the Documentation tab. This version of the Tutorial will include a more detailed demonstration of the Automated Transport feature. |